**Algebra 1B Name:**

**1.7 Warm Up Date:**

**Objective: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Warm Up**

Read the following scenarios. Identify the **rate of change** and the **starting amount**, and then use those values to write a **linear equation** for each scenario.

**Scenario #1:**

Nia has 10 Pokémon cards. She buys two more each day.

**Starting Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Rate of Change: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Linear Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Scenario #2:**

The buffalo population in America is in endangered. There are 12,000 buffalo now, but each year the population decreases by 1,500 buffalo.

**Starting Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Rate of Change: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Linear Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Scenario #3:**

Cate wants to start a business selling school supplies. She borrows $20 to buy the supplies and then starts selling pencils for $0.30 each.

**Starting Amount: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Rate of Change: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Linear Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**A Stiff CHALLenge:**

Can you identify the **dependent** and **independent** variables in each of the scenarios above?

**1.7 Graphing Linear Equations Date:**

**How to Graph a Linear Equation:**

1. Identify the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and use that amount to make a point on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Identify the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   1. If the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a **whole number**, change it to a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

with a \_\_\_\_\_\_\_ in the denominator.

1. Starting from the y-intercept/starting amount, use the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to graph your second point on the line.
   1. If the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, go \_\_\_\_\_\_\_\_ and to the

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* 1. If the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, go \_\_\_\_\_\_\_\_\_\_\_\_\_

and to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* 1. Repeat the process to graph a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ point.

1. ALWAYS use a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to make your line \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. ALWAYS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ your line to cover the entire coordinate plane.
3. ALWAYS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

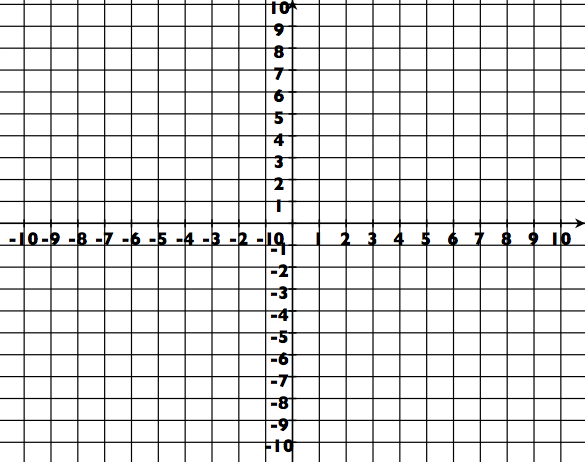
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|  |  |

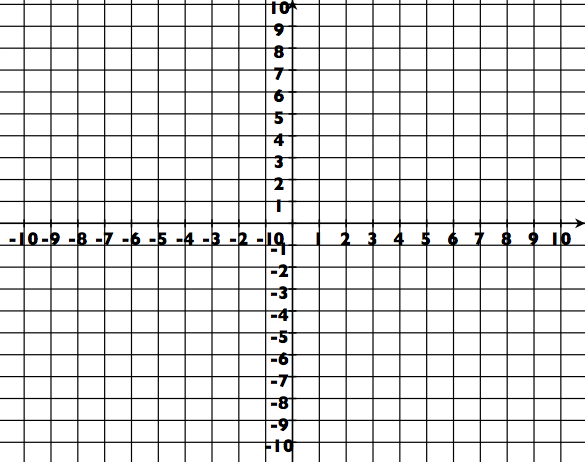
**Algebra 1B Name:**

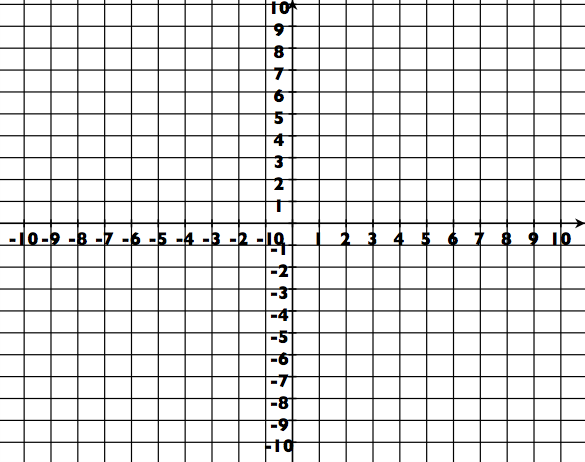
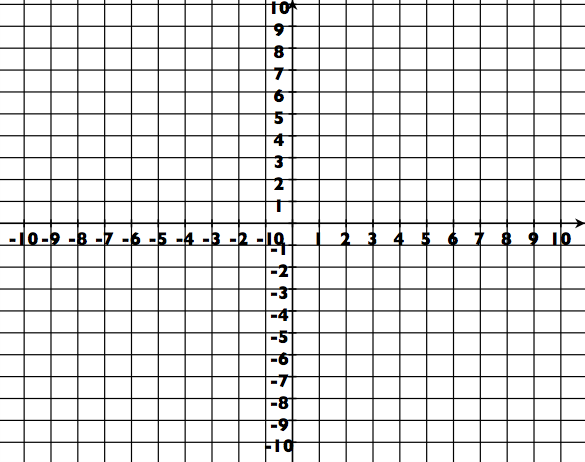
**1.7 Classwork**

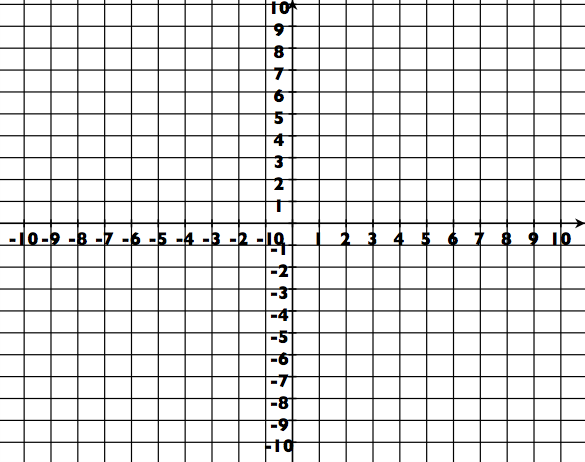
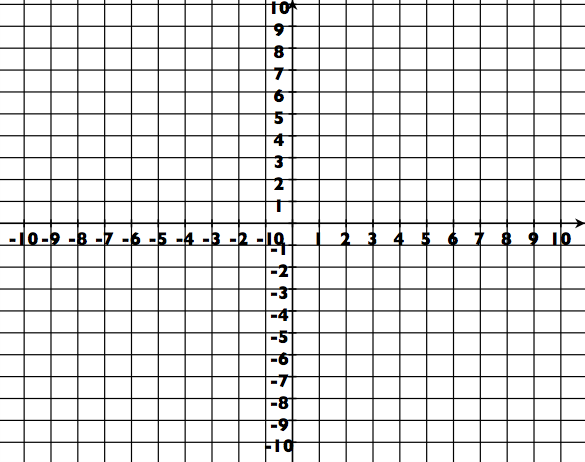
**Part I Directions:** Graph each equation.

|  |  |  |
| --- | --- | --- |
| **1.** | **2.** | **3.** |
| **4.** | **5.** | **6.** |

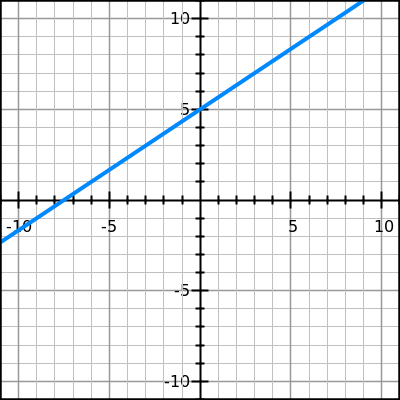
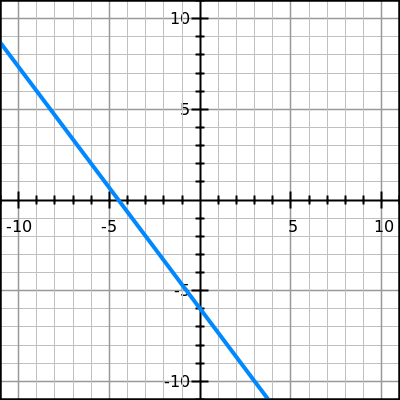






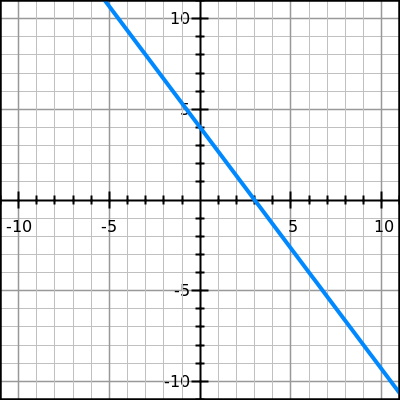
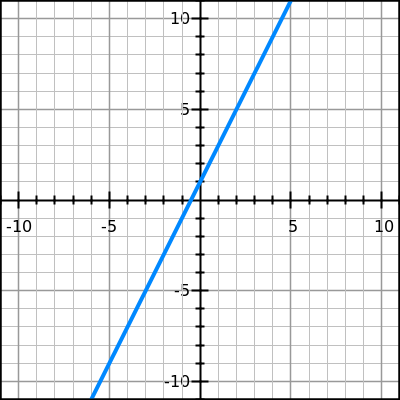


**Part II Directions:** Write the equation of each line.

**8.** Equation:

**7.** Equation:



**Algebra 1B Name:**

**10.** Equation:

**9.** Equation:

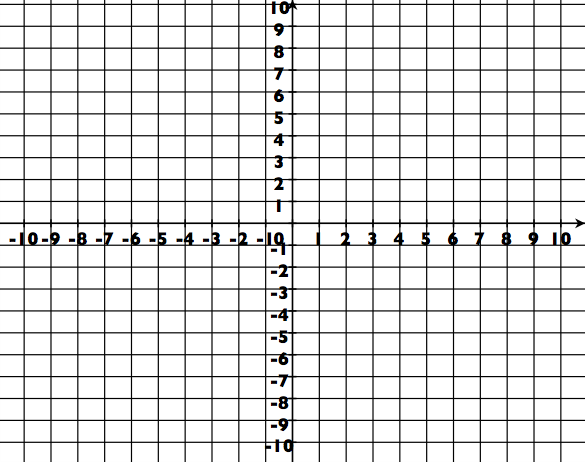
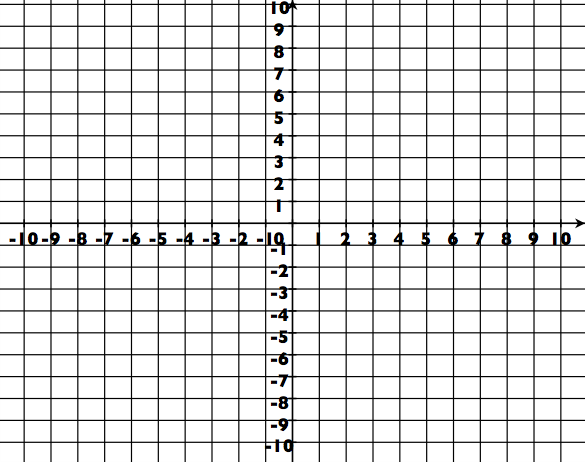
**1.5 Homework Date:**

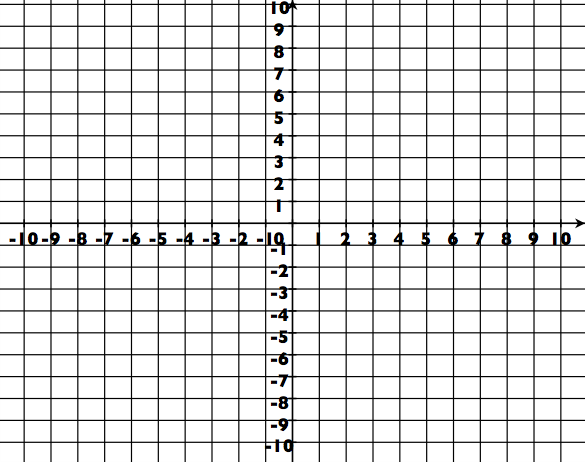
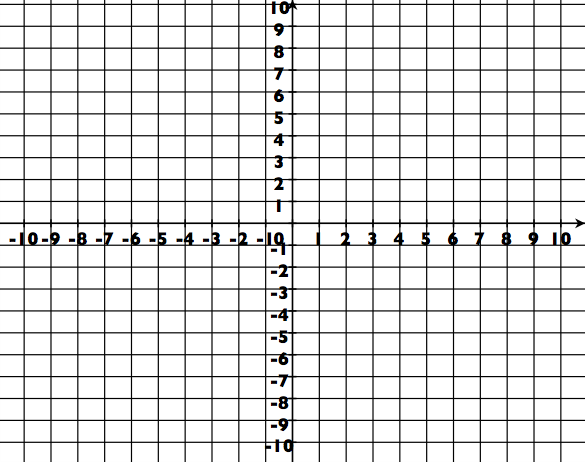
**Graphing y = mx + b**

**Part I**

**Directions:** Graph each line. Pay attention – which is the starting point? Which is the rate of change?

|  |  |  |  |
| --- | --- | --- | --- |
| **1.** | **2.** | **3.** | **4.** |

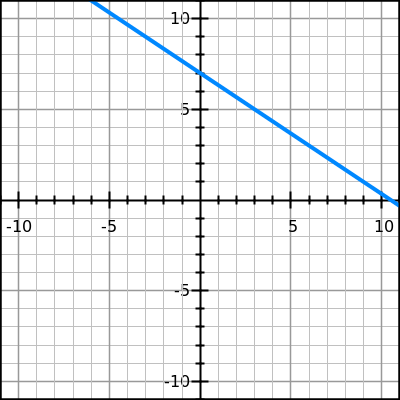
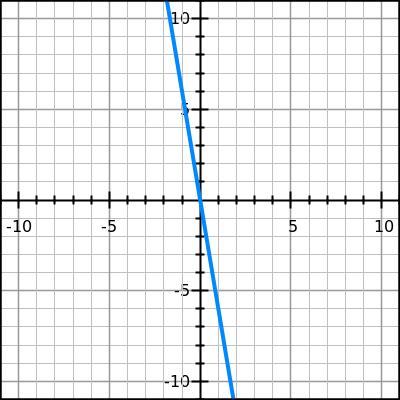




**Do both sides to get credit!**

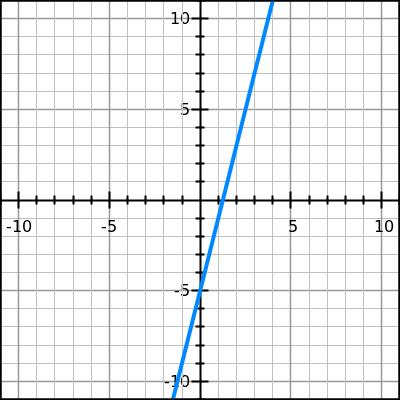
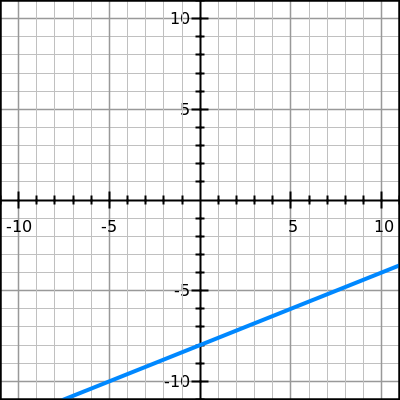
**Part II**

**Directions:** Write the equation of each line.

**6.** Equation:

**5.** Equation:

**8.** Equation:

**7.** Equation: